Swastik Oil Products Mfg. Co. Navsari

MANUFACTURERS OF: GLYCOL ETHERS & OTHER ETHOXYLATES

TECHNICAL DATA SHEET FOR HYDRAULIC BRAKE FLUID DOT-4

Sr.No.	Nature of Test	Requirements
I	Appearance	Clear, homogenous liquid meets free form Water, dirt, sediments,
II	Color	N.A.
III	Equilibrium reflux Boiling pt., ^o C	230min.
IV	Wet ERBP, ⁰ C	155min.
V	Kinematics Viscosity, mm ² /sec. a) at minus 40°C b) at 100°C	1800max. 1.5min.
VI	pH Value	7.0 to 11.5
VII	Brake Fluid stability a) High Temperature stability change in ERBP, ⁰ C Max. b) Chemical stability ⁰ C change in ERBP of mixture, ⁰ C max.	3+0.05 for each degree above 225 ^o C 3+0.05 for each degree above 225 ^o C
VIII	 Corrosion Test: at 100 °C for 120hrs. a)Mass change, mf/cm 2, max Tinned Iron Steel Aluminum Cast Iron Brass Copper b) Connection of Metal Strip c) Appearance of test fluid in jar at 23 + 5 °C d) Crystalline deposit it on the walls or jar and metal strips. e) Sediments,% by volume f) pH of Test Fluid g) Effect on Rubber cup(SBR) i) Appearance ii) Hardness. Decrease(IRHD) iii) Base Diameter Increase, mm 	 0.2 0.2 0.1 0.2 0.4 0.4 No visible pitting or Etching No jelling None. 0.10Max 7.0 to 11.5 No disintegration as Evidenced by blisters of Sloughing 15Max. 1.6Max

OFFICE :"OM VILLA" D-17 to 24, VASANT VIHAR, NR. SHRUSHTI APT; LUNCIKUI, NAVSARI-396 445 MOB :9429723461 * E-MAIL : anup@swastikoil.com, mitesh@swastikoil.com

AN ISO 9001 : 2015 CERTIFIED COMPANY



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Subject to Mumbai Jurisdiction

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iX	Fluidity & appearance at law	
	temperature	None
	a) at Minus 40 °C for 144 hrs.	10Max.
	i) Sludging, Sedimentation,	TUMAX.
	Crystallization or stratification.	None
	ii) Bubble flow time, Second b) at Minus 50 °C for 6hrs.	35Max.
	,	SJIVIAX.
	i) Sludging, Sedimentation,	
	Cystallization or stratification ii) Bubble flow time, Second	
х	Evaporation test at 100 °C	
~	a) Loss in Mass%	80Max.
	b) Abrasiveness or grittiness	None
	c) Pour point of residue, ⁰ C	<- 5
XI	Water Tolerance Test:	
	a) at Minus 40°C for 120hrs.	
	i) Clarity	Clear
	ii) Sludging, Sedimentation,	None
	Stratification, or Crystallisation	10Max.
	iii) Bubble flow time, Second	TUMAA.
	b) at 60° C for 24hrs.	None
	i) Startification	0.15Max.
	ii) Sediments, % by Volume	0. I Jiviax.
XII	Compatibility test	
XII	a)at - 40 °C for 24hrs.	
	i)Clarity	Clear
	ii)Sludging, Sedimentation,	None
	Crystallisation, or Stratification	None
	b)at 60 °C for 24hrs.	None
	i)Stratification	0.05Max.
	ii)Sediments, %Volume	0.001/142.
XIII	Resistance to Oxidation	
AIII	a)Change in mass mg/cm2	
	i) Aluminum	0.05Max.
	ii)Cast Iron	0.3Max.
	b)Condition of Metal strips	No visible pitting or etching &no gummy deposits.
XIV	Effects on Rubber cups (SBR)	
	a)at 70 °C for 70h	
	i)Base diameter increase, mm	0.17 to 1.6
	ii)Hardness decrease, IRHD	10Max.
	iii)Appearance	No disintegration as evidenced by blisters, sloughing
		&stickiness
	b)at 120 ºC for 70h	0.17 to 1.6
	i)Base diameter increase, mm	15Max
	ii)Hardness decrease, IRHD	No disintegration as evidenced by blister, sloughing
	iii)Appearance	& stickiness.

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